



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

About 30 Per Cent. more colonies of bees will be put into winter quarters this year than last. The fall honey crop was about 40 per cent. of an average crop; but the summer crop of honey "hung along" until the end of July—a month later than usual.

Loose Expressions often do harm, as well as cause much annoyance to those who try to "call things by their right names." In an article recently written by an apiarist for a metropolitan weekly we notice the following incorrect expression: "The safest food (for bees) is honey made from cane sugar." The writer well knows that honey is *never* made from cane sugar, nor, indeed, is it *made* at all; it is pure nectar gathered from the flowers! But some smart scribbler may now be found to claim that "honey is made from cane sugar," and to prove his claim he will quote from an article in the *Times* the very words desired to substantiate his assertion. That these words were thoughtlessly written we grant, but the harm done is just the same as though they were deliberate and intentional.

We insist upon "calling things by their right names," and if writers will not do it in their manuscripts, we invariably make the corrections in this office. But when they write to farm and miscellaneous papers, such corrections are not made, and an injury is there done to our pursuit.

A Representative Society Lady whose picture is given in this week's *Frank Leslie's Illustrated Newspaper*, is Mrs. Elliott Roosevelt, and her fair face is most pleasing. Pictures of the Visit of the Veiled Prophet to St. Louis present many grotesque and suggestive sketches.

The Honey Almanac will be published about the first of November, as we have received sufficient responses to warrant us in issuing it. Orders may now be sent in with copy for the Honey-Producers' Card. We will ship them as soon as issued. Prices: \$2.50 per 100; 500 copies for \$10.00; 1,000 copies for \$15.00, delivered at the freight or express office here. Please read the announcement on page 629, and see if you do not need some. We are getting an excellent amount of new material for it, in the shape of recipes for cooking and medicinal applications. It will be a very nice and attractive Annual.

Mr. A. F. Randall, of Randallia, Iowa, writes thus about the Honey Almanac:

Now you are on the right track in regard to advertising honey and recipes for using honey. You can count on me now for 100, and if I can use more I will order them later. The recipes for making cakes and drinkables I think will help us all to sell our honey. Please to give H. O. Kruschke thanks for me.

Mr. Allen Pringle made an exhibit at the Lennox County Fair, Ontario, and the Nappanee *Beaver* makes this note concerning it:

Mr. Allen Pringle had erected, in his usual place, a pyramid of honey, which was pronounced by all to be equal to anything seen at the Industrial Exhibition, Toronto. He had several new styles of bottles for extracted honey, which set off his display to excellent advantage. The comb honey was of a superior quality.

Dr. S. P. May, Superintendent of the Mechanics' Institutes and Art Schools of Ontario, who is at present making a tour of inspection, paid Nappanee a visit. He visited the agricultural fair, and expressed himself pleased with the exhibit, especially the display of honey by Mr. Allen Pringle. The Doctor is an experienced man at exhibitions, having represented Ontario at the Centennial, and the Dominion at the Paris Exhibition, so that his commendation is worth something.

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly.

By special contract we have secured terms by which we can offer the *Farm Journal* and either the *AMERICAN BEE JOURNAL* or the *ILLUSTRATED HOME JOURNAL* from now until Dec. 31, 1890, for \$1.20.

Or, we will give it free for one year to any one who will send us one new subscriber for either of our Journals with \$1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.

Miss Gertrude Gibbs reported the late Bee-Convention in this city for the *Farmers' Review*. She is a smart young lady.

To Ripen Honey is very essential, either before it is taken from the hives or after it is removed. Which of the methods is the better one, is a question that all are not agreed upon. One of those in attendance at the Ontario Bee-Convention remarks thus:

I have said in conversation and through the press, that if there was any one thing that I knew—if one thing I could cordially recommend—if one item of advice I could give with pleasure, it was: Do not extract honey until it is ripe. And yet, strange as it may seem, there are men who know much more about bees than I do, who say that it is not necessary—that honey can be ripened after it is extracted. I cannot account for this, except on the principle that some men lack ability to judge both flavor and texture.

We hardly think the last sentence is a charitable one. Many of those who advocate the ripening of honey after it is taken from the hives are apiarists of excellent ability, and fully able "to judge both flavor and texture." That honey must be ripened is a fact—the best way to do it is only in dispute.

Bees and Grapes.—A correspondent in the *Indiana Farmer* closed a letter a few weeks ago by saying: "Bees are damaging the grapes." Another correspondent replies to it with these unanswerable facts in this week's *Farmer*:

In the summer of 1887 it was quite dry in this section, during the time of ripening of our grapes; so much so that bees were not working any. I had some 40 colonies of bees, mostly settling in the shade of grape vines—all near them, and the grapes matured without a single instance of the bees disturbing them, that was seen. Then in 1888 the same thing was repeated—only the bees were starving for something to eat, the hives being nearly empty—some absolutely so, so far as I could see. I thought I would have to feed or lose all. Again we had a most beautiful crop of grapes; in many instances ripened on the vine, some bunches remaining until the grapes dropped off, and not on a single grape did I see bees working, and I looked carefully.

If bees will not work on grapes at such a time, when will they?

There is one of two things true in my opinion, grapes either crack, or some other insect opens them before the bees will disturb them, just as they do the apple, and some other fruits. After being opened they will likely work on them, but if not opened, I think they will starve first, not because they would not, but because they could not break the skin.

I. R. Good has moved 18 miles, to Vawter Park, Ind., where he intends to start a Carniolan apiary. His son will continue the Italian apiary at Nappanee, his old address.

This is what our friends say about the *Illustrated Home Journal*:

Rev. Stephen Reese, of Malden Rock, Wis., states his opinion in these words: "The *ILLUSTRATED HOME JOURNAL* is one of the handsomest and most interesting magazines for the family that I ever saw. It is rich and racy."

Mrs. J. N. Heater, of Columbus, Nebr., says: "The *ILLUSTRATED HOME JOURNAL* is just such a magazine as I have been wanting to take for a long time, and I appreciate it. I wish it success."

Two Bee-Periodicals have very strongly condemned the sending of "Bees by the Pound" through the mails, viz: *Gleanings* and the *Apiculturist*. The latter says:

By the time Brother Pratt gets his petition in, requesting the Postmaster General to permit such a thing, other petitions will be sent in strongly protesting against it. I will do my best to upset and defeat it.

The reason given for this opposition is, that though Messrs. Pratt and Doolittle may be careful enough to pack such bees so that they may go safely, many will be so careless in this particular, that some employees of the Postal Department will get stung, and as a result, all queens, and bees, too, will be excluded from the mails.

This "point is well taken," and we hope the matter will be dropped at once.

To present petitions and counter petitions on this matter—all from bee-keepers—would be very detrimental to our interest as a body. Whenever we want anything like that, the matter should come with the general endorsement of the craft. The "argument" might bring up points that would not be to the advantage of the pursuit.

Besides, the points to be gained are so very insignificant—only a few dimes would be saved any way, and it would accommodate only a very few individuals.

Mr. Root sells more "bees by the pound" than any one else, and he is opposed to the use of the mails for sending them out. Our advice, therefore, is to let the matter drop, for it is an infringement of the law as it stands, and we ought not to risk any right we now have, by asking for others of a doubtful nature, which are not generally desired.

We Propose to all who subscribe now for 1890, to give them all the rest of the numbers of this year free—so the sooner they subscribe, the more they will get for their money.

Now, in order to pay our friends to work for our JOURNALS, we have gotten up special editions of Mr. Doolittle's "Scientific Queen-Rearing," (with Appendix), and Dr. Miller's "Year Among the Bees," bound with nice paper covers, and will present a copy of either book to any one who will send us two new subscribers for either of our JOURNALS (the BEE JOURNAL, weekly, or the HOME JOURNAL, monthly).

These editions are not for sale, but are gotten up specially for premiums for getting new subscribers. They are nicely printed, and will be sent free of postage, as pay for work to be done for our JOURNALS. Clubs need not be located at one post-office, and may contain one "Bee Journal" and one "Home Journal" to the same or different addresses; or both may be for either JOURNAL, as may be desired. Dickens or Waverley may be obtained for each subscriber in this club as offered on the last page of this JOURNAL.

Subscribers who do not receive this paper promptly, will please notify us at once.

QUERIES and REPLIES.

Keeping the Bees in the Hive, When Cellaring Them.

Written for the American Bee Journal

Query 663.—What is the best plan to keep the bees in, while moving them into the cellar? I find if I put wire-screen over the entrance, it makes the bees cross; and when I get them in, and arranged, and begin to remove the wire, they rush out, ready for a fuss.—C. W.

A handful of earth, or sawdust, or a wet rag.—R. L. TAYLOR.

Place a wet cloth over the entrance, as Dr. Miller advises in his excellent book.—A. J. COOK.

Move them carefully, when cool or cold, and, if possible, after dark.—A. B. MASON

Put them on a spring wheelbarrow, and move them so carefully that they do not know that they have been disturbed.—G. M. DOOLITTLE.

Put them in during a cool time, handle them carefully, and leave the entrances open.—EUGENE SECOR.

Close the entrance with old cloths, or rags, and at night after the bees become quiet, remove the cloths quietly.—MRS. L. HARRISON.

Wait until a cold snap makes them quiet. You can then get them put to sleep before they wake up!—J. M. SHUCK.

Do not remove the wire-cloth from the entrance until the bees quiet down—say at night.—J. P. H. BROWN.

Take them in on a cold day. Have the cellar dark, and use a little smoke, if necessary. Use a lantern when light is needed.—DADANT & SON.

When moving bees about my apiary, I simply put a block of wood against the entrance, and leave it there until the bees get quiet.—G. W. DEMAREE.

Have the cellar dark; put a pine strip over the entrance, and give no jars when carrying. Remove the strip when permanently located.—J. M. HAMBAUGH.

If the weather is cool, and the hives are handled carefully, they do not need to be confined. If wire-screens are used, leave them on until the bees become perfectly quiet.—M. MAHIN.

I find that a piece of board laid over over the entrance is the best thing that I can use. Leave it on for a short time, until they become quiet, and you will have no trouble.—H. D. CUTTING.

I do not shut them in, but take them when they are quiet, and then do not stir them up. If I want to shut any in, I lay at the entrance a rag or cloth

dripping wet. When this is taken away, in the cellar, they do not rush out, as when fastened in by anything dry. Have the cloth very wet.—C. C. MILLER.

Carry the bees in when it is a little cool, or after dark. I never put anything over the entrances, and they do not come out, unless roughly handled.—G. L. TINKER.

The best plan to keep the bees in the hive while carrying them into the cellar, is to carry them *quietly*, not striking them against anything, nor jarring them in any way. Do not try to confine them within the hive with wire-screen, nor anything of the kind.—MAHALA B. CHADDOCK.

Stop up the entrance with a wad of grass, and do not open them for a few hours after they are carried in, when they will quiet down, and the grass can be easily removed.—C. H. DIBBERN.

Put your bees in the cellar when the temperature is such that they are the quietest. Lift the hives carefully so as not to jar them. I once put nearly 40 colonies in the bee-house, and only two or three ever had the least suspicion that they had been removed—I did it so quietly. The bee-house floor was covered with sawdust. The shelves which the hives were placed on, also had a two-inch layer of sawdust. It takes nerve and muscle to do it, but it pays.—JAMES HEDDON.

I have a $\frac{1}{2}$ -inch stick, just the length of the entrance, which is used for this purpose. When wishing to imprison the little "rebels," I step up to the front of the hive, and with a faint show of smoke, drive in the outside guards, the entrance-blocks are then removed, and this $\frac{1}{2}$ -inch stick quickly slipped in their place. This holds them securely, and can be taken away without causing a single bee to leave the hive. It is far better for this purpose than wire. But, if the bees were to be confined to the hive for any length of time, some arrangement for ventilation should be made.—WILL M. BARNUM.

If the bees are taken into the cellar after the weather becomes cold, they will need nothing to keep them in. If such is deemed necessary, however, a *very wet cloth* put over the entrance will not only keep them in, but it will have a soothing effect when it is removed. It is better than sawdust, wire-cloth or grass.—THE EDITOR.

Send Us the Names of bee-keepers in your neighborhood who should take and read the AMERICAN BEE JOURNAL, and we will send them a sample copy. In this way we may obtain many regular subscribers, for thousands have never seen a copy, or even know of its existence. This is one way to help the cause along.

CORRESPONDENCE.

CUBA.

Golden-Rod—Honey-Extractor for a Large Apiary, etc.

Written for the American Bee Journal
BY O. O. POPPLETON.

On page 585, Mr. Secor asks some questions about golden-rod. I used to think as he does, but longer observations showed me that there were different varieties of it, which varied greatly in their value to the honey-producer; and these again differed greatly in different seasons. Possibly certain varieties yield on some kinds of soils, and others on other soils. This would make an interesting point for botanists to observe.

Mr. S. also speaks of the value of the yellow-ray, or wild sun-flowers, which are so common in some of the Western States. At my old location, some 80 miles east from Mr. Secor's, there were two varieties of these flowers, one of much, the other of no, value. The difference between the two varieties was first pointed out to me by Mr. George Stocks, of Nashua, Iowa.

The valuable kind was very abundant on the Cedar river, a few miles west of my place, but it was very scarce near me. Soil on the Cedar river was drier and sandier than near where I was. It might be well for some one living where they grow, to identify and describe the two species.

While the most of the readers are probably getting their bees ready at this time, for their winter's rest, we, here in Cuba, are nearing the commencement of our annual honey harvest.

Improving the Honey-Extractor.

In replies to Query 560, on page 534, Mr. Heddon says: "So far as I know, we never had a half-way-decent honey-extractor; that is, one at all worthy of the use of a bee-keeper who produces tons of extracted honey. The best of our present machines are just good enough for amateur bee-keepers, who have from 3 to 10 colonies of bees."

This is a strong statement, but not so far from the truth as many might think, at first glance. This apiary yielded fully 25 tons of honey last winter, and the ordinary two or four frame machines would be a nuisance here; but the one that we do use, is probably as far from Mr. Heddon's characterization, as anything yet manufactured.

In ordering the machine from the owner of the Stanley patent, I mentioned certain points that we insisted

upon, leaving the details to him. I required a six-frame Stanley reversible extractor, built very strong and substantial, with overhand gearing, the handle being attached to a horizontal rod extending outside of the can, and so geared as to give 1½ revolutions of the baskets to one of the handle; to be furnished with a serviceable brake, and permitting of being oiled without removing any part of the machine.

As this was the first machine of the kind ever made, new patterns had to be made for all the castings. We did not get it set up until almost the close of the season, but judging from the few thousand pounds that we extracted with it, I think that we shall like it much better than I expected we would when ordering it.

It is unquestionably far superior to anything I have ever yet seen or used, but is, so far as I know, the only one of the kind yet manufactured. If any one has any better extractor, let him describe it, as we want the best.

Havana, Cuba.

BAY STATE FAIR.

The Exhibits of Bees and Honey at the Bay State Fair.

Written for the American Bee Journal
BY ALLEN LATHAM.

Yesterday I paid a visit to the Bay State Fair, held in Boston, and the exhibit in the bee and honey department, as a whole, was poor for even an Eastern State, though individual exhibits were creditable. The total amount of honey exhibited would not exceed 300 pounds; of beeswax, not more than 50; and only one full colony of bees. The premiums were fitly awarded. These were sufficiently large to call for a better exhibit.

The first premium on clover honey was taken by Miss M. A. Douglas, of Shoreham, Vt.; the 2nd, by D. W. Clement, who also took the 1st premium on light fall honey. The 1st premium on buckwheat honey was taken by E. N. Fisher, of Ludlow, Mass.; also, the 1st on beeswax and black bees.

Henry Alley took the 1st prize on Italians, and the 2nd on black bees; also 2nd premium on beeswax.

I saw some of the exhibitors, and had considerable talk with them. From all, I heard the cry of "poor season," which will perhaps account for the poor exhibit. One of the exhibitors wished to visit some friends in this part of the State, and so brought on some honey and bees. He took enough prizes to pay his expenses.

Cambridge, Mass.

BEES IN WINTER.

Best Way to Winter Bees—The Different Systems.

Written for the New York Tribune
BY PROF. A. J. COOK.

Bees are natives of a warm climate, where they can fly nearly or quite every week of the year. In nature, bees can retain their fecal matter while in the hive, and never void their intestines except as they fly forth. As with well bred and trained cats and dogs, bees will not soil their domiciles. Thus, in case of long confinement, as is often necessary in our Northern climates, they become diseased.

In their native home, the only provision to insure safe wintering—bating accident—is enough good food. This is true in our Southern States, and in California and Oregon to-day. There, bee-keepers are only watchful that their bees have sufficient good winter stores, and they are without anxiety as to result.

Most insects in our Northern climate pass the winter in a state of profound hibernation; they eat nothing, move not at all, and are seemingly without life, but not so with the honey-bees. They are ever and anon moving about the hive and eating the little that their slight exercise makes necessary. Open a hive in the dead of winter, and even though it rests all unprotected on the summer stand, we will find the bees move and show that they are not dead, nor even sleeping. Thus we easily understand that with the naturally neat habits of bees, with our long, cold winters, and their exceptional habits of activity and feeding, produced doubtless by their long existence in a warm climate, it becomes no easy matter to carry them safely through the winter.

Two things are necessary to this end in our rigorous Northern climate, viz: 25 or 30 pounds of good food per colony, and such protection as will make the severe cold and long confinement endurable.

Honey is a very indefinite term, as bees collect nectar—the source of honey—from many and very widely different locations. That all honey is safe food for winter is not true. The safest food is that made from cane-sugar syrup. Often honey is worth more in the market than is such sugar, at which times it will pay well to extract, and sell the honey, and feed syrup to the bees.

The sugar must be only the best cane-sugar; glucose is not relished by the bees, and, as has been proved often, is fatal as a winter food. Usually, however, honey collected from flowers

is safe to give the bees for winter. Some bee-keepers object to autumn honey for wintering; I have tried such repeatedly, and with the best results. I think that the safe rule is this: Give to bees any honey that you would relish on your table.

Sometimes the bees gather nectar which is secreted by various insects; some of this is rank and unwholesome; it smells and tastes bad. Such honey is fit neither for table nor bees, and if used for wintering, it will almost surely bring disaster. Such honey should always be sold for manufacturing purposes, where it often serves as well as any.

Temperature of Bees in Winter.

The matter of temperature is not so easily provided for. There are three ways to arrange bees so that they may not succumb to our most severe winters. Messrs. Root, Hilton and Poppleton advocate chaff hives. These are double-walled hives with 4 inches of chaff or dry sawdust between the walls. The objections to these are, that they are expensive, heavy to handle, and do not always save the bees. If they would always succeed, as their advocates claim will be the case when rightly managed, they would have much to recommend them.

Messrs. Bingham and Southard have been signally successful by packing. They place a large box about the hive, and fill in with chaff or sawdust, always arranging so that the bees can fly whenever the weather permits. If so successful (and I see no reason why it should not be) I should, on the ground of cheapness and convenience, prefer this to chaff hives. Mr. Bingham places six or eight hives close together, and makes one box do for all.

After trying all the ways, I much prefer cellar wintering. I think that the large majority of Canadian and American bee-keepers in our Northern States agree with me. The only requisites for a good cellar are, that it should be dark, well ventilated, and should preserve a uniform temperature between 38° and 45°, Fahr. It would be best if the temperature could be kept uniformly at 45°. This keeps the bees very quiet, so that they eat and move but little, and so remain in good health even from October to April.

If the cellar becomes too cold or too warm, the bees stir more, eat more, and very likely become diarrhetic, and come out in the spring weak, if alive. It is easier, of course, to keep a cellar at the right temperature if wholly underground. If found troublesome to preserve the temperature at the proper point, as may be true in very cold or in rather mild regions, we can secure this result by sub-earth ventilation, by

artificial heat, or by having a large cistern in the cellar.

I have sub-earth ventilation. A long, 8-inch pipe runs from the bottom of the cellar at least 6 feet underground for many rods before it comes to the surface. A chimney or flue extends from the bottom of the cellar to some feet above the top of the house. By aid of fires in the house above, this flue is kept warm. Thus the cellar is kept warm and well ventilated. The air drawn in through this sub-earth pipe comes into the cellar warmed, and my object is secured. This arrangement is common in this part of the country, and works well. This however, is expensive, and better not be adopted unless found to be absolutely necessary.

I know of several who have wintered bees successfully for years, just in a common cellar. I know of others who control the temperature admirably by means of a large cistern full of water. Dr. C. C. Miller, of Illinois, keeps a small coal-stove in his cellar, by which he keeps the temperature to his liking. I feel certain that with a good cellar and proper care to secure good food, we may winter bees without loss.

Agricultural College, Mich.

GOLDEN-ROD.

The Plant as a Family Yields but Little Honey.

Written for the American Bee Journal
BY R. DART.

The golden-rod family is large, and grows in great quantities in the new States and Territories in the West. It is wild, and stands no cultivation.

Mr. Eugene Secor, of Iowa, tells the truth when he says that there is a yellow aster in bloom at the same time with the golden-rod. On river banks and mud lakes this aster grows 5 feet high; on wet marshes it grows close to the water a few inches above, and is of the dwarf species.

I have been a bee-keeper forty years, and have tried to know what my bees get their honey from during the season. The first twenty years of my life were spent in the wild-oak openings of Wisconsin. I was a bee-hunter, and have taken thousands of pounds of honey from bee-trees. Many of these trees were located close by these large marshes covered with this aster, and when the hollow in the tree was large enough to hold the honey, I have taken large quantities of this yellow honey. The quality is very fine.

Other trees located miles away, and surrounded by golden-rod, when cut, I would find but few pounds of fall

honey. My long experience as a bee-keeper and bee-hunter has shown me that the golden-rod family yields but small amounts of honey.

If I were asked to name the flower that was the best friend to the bee-keeper, taking one year with another, for the Northern and Western States, I should say, the "little, white, Dutch clover."

Ripon, Wis.

MIGRATION.

Sending Bees to the South to be Wintered.

Written for the American Bee Journal
BY JOHN CRAYCRAFT.

I have read Mr. Doolittle's article on page 581, concerning the transmission of bees by the pound through the mails, and I am pleased to know that such a thing can be done; but I fear that the Postal Rules may be drawn down on our already especially-favored traffic in queens, although I see no good reason why a pound of bees may not go by mail as safely as a dozen, and no doubt such a permit will be granted; but the fear would be that some of the careless ones would not use that care and caution that would be necessary at all times to prove a safe transportation of them by mail, and if there were to be a few disasters, and loss of mail-matter, then the entire queen-traffic through the mails would be prohibited, I fear.

I do not think that the express charges on bees per pound, put up in suitable cages, carrying from one to three pounds of bees, according to the quantity desired, would be any more expensive than that of the mail—that is as Mr. Doolittle suggests in shipping bees to the North in the spring. Then this brings up this question whether it is profitable, in case of loss of bees during the winter, to send South and get a pound of bees and a queen, and put upon the combs, and soon have a prosperous colony of bees.

This then brings out the shipping idea—say about Sept. 1, the bee-keeper in Michigan puts up all his bees in cages containing one, two or more pounds of bees, that are in each colony with their queen; crates the cages in convenient packages of five or ten, as might be deemed best, and ships them to the South, as far down as the St. John's river, in Florida, to some bee-keeping friend, or partner in the business, who is prepared with hives filled with either comb or foundation, and who will turn them on the combs and care for them (for at this very date, Sept. 21, my bees are busy carrying

in honey and building comb very fast, and the river swamps are full of bloom, and will be yet for more than a month; so that bees will have all they will need for their short winter, from about Nov. 15 to Jan. 15, when the maples, blackberries, and many other wild flowers along the river begin to bloom.

Then the bee-keeper here, that expects to get a full crop of orange-blossom honey, must wake up his bees, and have them breeding as soon as possible, for the orange begins to open the last of February; so that the bees that come from the North, will have March, April and May here, or until they were needed for the clover-fields of the North; and then the old queen, if living, could be returned North with one, two or more pounds of bees, as desired, in the cases that they were sent down, so that there would be no expense for cages, as they could be used a number of times, with proper care; and the Florida man would have left a hive full of brood and eggs that would soon rear for them a queen, and be ready for the palmetto honey through the rest of May, all of June, and often part of July, from the cabbage palmetto.

I can see no reason why such a moving of bees could not be made profitable to both parties—the honey that the North-end man would save, would far more than pay the charges both ways, for I see no reason why a colony of bees (say two pounds and their feed and cage) should weigh over 5 pounds, and a case of ten would weigh 50 pounds, which, at \$6.00 per 100 pounds, it would not cost over 30 cents per colony each way; but, to be certain, say 50 cents each way, making \$1.00 for the round trip; and \$1.00 each to the South-end man, for the care of putting them into hives, and for putting into the cages for return shipment. The extra honey obtained from the bees and the colony left of young brood and eggs, would pay for the honey-care if in the hands of a practical man.

I have no doubt but what some may think that there are many drawbacks to a practical demonstration of this theme, or scheme, and I think so myself, and will continue to do so until I know of a practical test being made; but I feel confident that with a practical man at each end of the line, that there is certainly a fair showing to make a success of it. I am corresponding with parties in the North, with whom I would like to make a practical test of a few colonies, for I have not the hives and combs necessary for only a few, but enough for a test case; and if it was practical, I would prepare to take care of a con-

siderable number another season, and connect with it queen-rearing, from such queens as might be desired to have reared and returned to the owner of the bees, for the summer campaign in the clover-fields of the North.

Altoona, Fla.

REARING QUEENS.

Colonies Rearing their Own Queens after Swarming.

Written for the American Bee Journal
BY BYRON HAMS.

Mr. Doolittle is correct when he says (page 599) that it pays to let colonies rear their own queens after swarming. I would add that if the swarm issues at the beginning, or in the midst of a good honey-flow, and the swarm is a large one, it is a good plan, if we want honey, to place the swarm on the old stand, and remove the parent colony to a new location; then give the new swarm all the surplus combs on the old colony, or a full set of combs, if you have them.

In two or three days, or as soon as the bees get to business, I remove the queen and give a cell as nearly ready to hatch as possible. This colony, not having much brood to care for, will surprise the "natives" with the amount of honey that they will store.

After the honey-flow is over, and the young queen gets to work, we can soon build them up into strong colonies for the next flow, or for winter.

As to the parent colony, fill its surplus room with foundation as soon as it needs it. To keep down increase and secure a large yield of honey, the above plan cannot be excelled.

I place the new swarm on half-sheets of foundation; this insures straight combs, and gives the bees a chance to use their accumulated wax-scales, which would be wasted with full sheets of foundation.

I work for extracted honey, and I cannot say how the above plan would work for comb honey.

On page 619, Frank Coverdale "hits the nail squarely on the head," in rearing perfect queens. I have reared the *finest* queens this season by that variation from the Doolittle method. I select a good, strong colony to start the cells, give to it a few frames of hatching brood, and "crowd them" until they have to swarm. I then give a few embryo queen-cups, placed where the queen will find them (I always keep a lot on hand which I carefully save). As soon as I find eggs in the cups or cells, I am ready to remove the queen, and just as I find the proper amount of royal jelly placed in the

cells, I remove them, and lift out the larvae and fix them up, *a la* Doolittle.

Some Excellent Results.

The white clover honey crop was splendid here this season, lasting about nine weeks. Our fall crop was a failure, and as we usually get our largest yield from this source, we can consider our crop about three-fifths of a yield. My bees are in fine condition for winter, very strong in numbers, and with 30 to 40 pounds of the best honey for each colony, and when they are prepared according to Mr. Muth's plan of wintering (see pages 601 and 629), they are bound to go through safe and sound.

Now as to my report: Although it is not as good as I expected, I am well satisfied with the results as they are. I commenced the season with 23 good colonies, increased them to 62, by natural swarming, sold 2 swarms for \$5.00, and one 3-frame nucleus for \$3.00; 4,882 pounds of extracted honey at 8 cents per pound—\$390.56; 144 pounds of comb honey at 15 cents—\$21.60; and 45 pounds of beeswax at 20 cents—\$9.00; making a total of \$429.16.

I have 37 extra-good colonies of bees, not counted in the above, which I value at \$6.00 each. I owe a good share of my success to the ever-welcome old AMERICAN BEE JOURNAL.

Worcester, Mo., Sept. 30, 1889.

IN COUNCIL.

The Bee-Keepers of the Northwest Meet in Chicago.

Written for the American Bee Journal
BY W. Z. HUTCHINSON.

The Northwestern Bee-Keepers' Society held its convention at the Commercial Hotel, Chicago, Ills., on Friday and Saturday, Oct. 11 and 12, 1889, at 9 a.m., with President C. C. Miller, M. D., in the chair.

That a Society loses by not holding regular meetings is shown by the diminished attendance as compared with former years. It will require a year or two to again awaken interest and bring together the brethren that have been practically disbanded. We have no fears, however, but that the Northwestern will regain its former numbers, and eventually become the best convention there is. It holds its meetings in the railroad centre of the great honey-producing West, and at the season of the year when reduced fares are easily secured. That a convention cannot be a success without low railroad fares, is shown by the fact that but few bee-keepers were present

from east of Chicago, no reduced rates having been given in that direction—why, could not be learned.

President Miller opened the meeting with prayer. The reports of the Secretary and Treasurer were read and approved.

The annual dues were reduced to 50 cents. This was done because there was money remaining in the treasury, and expenses would be light, as there would be no expense for a hall. The following male members paid their dues, the ladies being free:

L. A. Aspinwall, Three Rivers, Mich.
B. T. Baldwin, Marion, Ind.
T. J. Baldwin, Wyoming, Iowa.
John Bird, Nashua, Iowa.
S. N. Black, Clayton, Ills.
John Brady, Wyandot, Ills.
T. S. Bull, Valparaiso, Ind.
John N. Conger, Wyoming, Ills.
D. D. Cooper, Sherman, Ills.
A. W. Cumins, Woodstock, Ills.
Mark Davis, Lisle, Ills.
James Fornerook, Watertown, Wis.
D. A. Fuller, Cherry Valley, Ills.
Russell Fuller, Richmond, Ills.
A. W. Gardner, Centerville, Mich.
Geo. L. Gast, Le Claire, Iowa.
S. E. Gernon, Waukesha, Wis.
E. P. Gibbs, Lyndon, Ills.
Chas. H. Green, Waukesha, Wis.
J. A. Green, Dayton, Ills.
G. Harseim, Secor, Ills.
A. S. Haskin, M. D., Lawrence, Mich.
James Heddon, Dowagiac, Mich.
William Heddon, Dowagiac, Mich.
S. H. Herrick, Rockford, Ills.
L. Highbarger, Leaf River, Ills.
J. Hodgson, Jr., Pewaukee, Wis.
C. W. Hudson, Waukegan, Ills.
J. Hunter, Wyoming, Iowa.
W. Z. Hutchinson, Flint, Mich.
Dr. H. Joseph Jaxon, Chicago, Ills.
B. Kennedy, New Milford, Ills.
A. L. Leach, Dwight, Ills.
W. C. Lyman, Downer's Grove, Ills.
Lot Mason, Auburn, Ills.
C. C. Miller, M. D., Marengo, Ills.
M. S. Morgan, South Elgin, Ills.
Thomas G. Newman, Chicago, Ills.
Howard Ogle, Palona, Ills.
R. Pendergrass, Malta, Ills.
Geo. Poindexter, Kenney, Ills.
G. W. Redmon, Paris, Ills.
G. D. Rogers, Peatonica, Ills.
A. I. Root, Medina, Ohio.
C. J. Schafer, Eddyville, Iowa.
C. Schrier, Peotone, Ills.
Jas. A. Stone, Bradfordton, Ills.
N. L. Stow, South Evanston, Ills.
G. Ruff, Burlington, Iowa.
M. J. West, Leaf River, Ills.
J. C. Wheeler, Plano, Ills.
C. E. Yocoin, Sherman, Ills.

LADIES.

Mrs. John Bird, Nashua, Iowa.
Mrs. C. H. Green, Waukesha, Wis.
Mrs. L. Harrison, Peoria, Ills.
Mrs. D. N. Jones, Marengo, Ills.
Mrs. B. Kennedy, New Milford, Ills.
Mrs. W. T. F. Petty, Pittsfield, Ills.
Miss Gertie Schrier, Peotone, Ills.
Mrs. L. H. Scudder, New Boston, Ills.
Mrs. N. L. Stow, South Evanston, Ills.
Miss Emma Wilson, Marengo, Ills.

The Northwestern is known as the convention that sails in without any essays, or even programme. Whoever "wants to know, you know," writes out his query, and hands it to the President. So long as we can keep Dr. Miller in the chair—and we have succeeded pretty well so far—this plan

will work to a charm. He keeps things stirred up and moving. If the folks are slow in talking, or in answering queries, he will call some one right out by name, and make him talk, and then the discussion is soon getting red hot.

The opening address, made by Thomas G. Newman, was as follows:

Mr. President and Apiarian Co-Workers:

In 1884, when last this Convention met we little thought that five years would elapse before we should meet again, but such is a fact. One thing and another have prevented the "Northwestern" from convening until this day, and now we hope to have one of those interesting occasions, such as is the delight of bee-keepers to attend.

What have we come here to do? To talk over the past and learn wisdom from our experiences and those of our co-workers. "Let there be light" was the fiat of the Almighty 6,000 years ago, when darkness covered the earth; and then the obedient sun gave to this globe of ours the full blaze of its electric fire, and has continued to us that light unto the present day, dispelling darkness and warming the earth by its genial rays. Light and knowledge and power have been man's inheritance, as the days come and go. The poet wisely remarks that

The waves that moan along the shore,
The winds that sigh in blowing,
Are sent to teach a mystic lore,
Which men are wise in knowing.

To this end have we come together, so that the wisdom of each one may be communicated to all, with the magnetic currents of personal contact and hearty fellowship. For in our pursuit, as well as in all others, there is always something to learn, and the one whose ears are always open to learn, and who puts into practice the instruction gained, is the one who succeeds!

The successful bee-keeper is *not born* like the poet, but is *made* by practicing and improving upon his own experiences as well as the knowledge and experiments of others.

Mistakes are made and reverses come, but these do not discourage—they only strengthen the determination to succeed. Patient perseverance, coupled with wise and skilful methods will win at last! No season should be allowed to pass without adding to our store of bee-knowledge—both practical and theoretical. Then only may we hope to reach the top, and earn the proud distinction of being called "bee-masters!"

The honey season just ended has been a grand success in most of the Northwestern States, but in Michigan, Indiana, and many parts of the East and South, it has been one of the poorest for many years. Our country

is so large, with climatic conditions so varied that no regulation will apply to all, and no harvest will result alike in all parts of it!

Is there any avocation in life that has no drawbacks? Nay, verily. Disasters come in all lines of business, but bee-culture compares favorably with any of them.

While we in the favored Northwest are enjoying the proceeds of a rich honey-harvest, let us try to sympathize with our brethren of the East and South, and encourage them to hope and labor for the years of plenty yet to come to them, as well as to others.

I trust that this Convention will be productive of much good, by diffusing useful knowledge to all present, as well as to those who are anxiously looking for the report of this meeting to bring them something to think about and to practice in their apiaries during the coming year.

Of course we shall differ in our opinions, as do the greatest and best of men, but this should not give rise to any feeling of ill-will. Our thoughts are but the "clothing" of the mind, and we might as well dislike a person for being clothed in white or blue, because our choice is for green or black—as to be provoked at the opinions of others, which do not agree with our own. Diverse opinions lead to wisdom, improvement, progress and knowledge—aye, the "liberties" of which we so often boast, are guaranteed by the diverse thoughts of our fellow men.

We have struck an era of low prices, and as the former days of extravagance will not return, waste and prodigality must cease, and a system of rigid economy be enforced.

New and labor-saving methods are demanded, and while some of you have such, we earnestly request you to describe them, that they may be practiced by all. While we cannot hope to return to the high prices of yore, we can realize some reward for our labors, and that *some* will be determined by our intelligence, industry and improved methods.

Heed the lessons which every season teaches, and you will succeed—if you do not, then you must expect to fail. We have here some level-headed and prosperous apiarists, who go through all times and seasons and prosper. Let us appropriate the light they reflect, and *follow* where we cannot lead. Intelligent and practical methods will always pay.

Let us now enter upon the discussion of practical subjects, and endeavor to do one another good, and thus make this convention one of the most useful and compensating meetings ever held in America. THOMAS G. NEWMAN.

Putting Bees into Cellars.

The first question asked was, "How early shall bees be put in the cellar?"

A. S. Haskins would put them in as soon as they were through storing honey.

James Heddon did not want them put in until they were through breeding and handling pollen, and had had several little flights afterwards. No definite date can be given.

L. A. Aspinwall had put in bees late, leaving them until the last moment, and they wintered well.

A vote was taken to learn at about what time the majority would put bees in the cellar. The greatest number voted Nov. 25. The question gradually drifted into the one of

Wintering Bees.

Mr. Heddon—If there were any system of wintering bees that would always prove successful, we would all have known it long ere this. Having said this, I will still further say that by putting bees on clean combs, feeding them properly-prepared sugar-syrup, and putting them into a warm cellar, I can winter them with less danger of loss than any one can winter a horse or a cow.

E. P. Gibbs—How about dampness?

Mr. Heddon—I am not afraid of dampness in itself. I do fear a low temperature, and dampness is equivalent to a low temperature; but keep the temperature high enough, and dampness will do no harm. Before some one gets to talking about "Nature," let me say that bees are natives of a warm climate, where the opportunities to fly are frequent. In cold climates they are away from their natural environments. For months, the cold confines them to their hives. If they consume a food containing much nitrogenous matter, the intestines become overloaded, and disease is the result.

M. Aspinwall would keep the bees warm by having them in a house-apiary, and warming it with a stove when necessary. He advocated large combs, because they contain more stores, and there is less necessity of the bees shifting from comb to comb in search of stores.

Mr. Gibbs—Did you not lose bees one year, Mr. Heddon, when the stores were sugar?

Mr. Heddon—Not in the cellar, nor by diarrhea. I lost some in the open air, that actually froze; but there were no signs of diarrhea.

Mr. Gibbs—I cannot believe that it is pollen that kills bees. I think that it is "cold." I have wintered bees in different cellars, and lost 50 per cent.

in a cellar that was very cold, and in the others I lost none. As I now winter my bees, I would not give a man 50 cents to insure them.

Mr. Heddon—I do not care what kind of "fixings" you have, nor how you prepare your bees, if you have some bees from my apiary, with the stores that my bees have, and my bees die, yours will die also. It is a question of food, except that cold induces a greater consumption of stores, and the sooner overloads the intestines. There is no other theory, except the "pollen theory," that explains all winter losses.

President Miller—Well, suppose that we admit that it is pollen that causes the loss, what are we going to do about it? If there is nothing that we can do, except to take our chances, what is the use of discussing it?

Mr. Heddon—When sugar is much cheaper than honey, it will pay to winter bees on sugar; but when honey is worth less than sugar, as it is now, we cannot afford to do it. It will be more profitable to take our chances on honey. But we can have a selection of stores. I can have a case of honey stored in the summer, when but little pollen is stored, and put it aside for winter. After the brood is hatched, we can simply shake out the bees, and allow them to run in and take possession of the reserved case. We can winter the bees in a warm cellar, where there will be the least inducement to consume pollen. We can do the best we can.

Best Size of Sections.

The gist of this discussion was that the pound sections were the most desirable. Less than a pound was preferable to more than a pound, as the dealer would be asked to "throw in" an ounce or two over, while no fault would be found with a little lower price, as the result of a little less honey. All of Mr. Heddon's comb honey for this year had been stored in half-pound sections. He secured as much honey as when larger-sized sections were used, and it enabled him to get ahead of the farmers who brought in honey and sold it at a low price. His half-pound sections sold readily at 10 cents apiece.

Packages for Extracted Honey.

Mr. Heddon—The pound sections made a success of the marketing of comb honey. The best package for retailing extracted honey is glass. It should hold about one pound. The difficulty is with the price. It ought not to be more than one cent or ten. When honey was high, it did not matter so much. Honey has fallen in price more than glass has.

Supers for Hives.

S. N. Black—I am using something like the old style of Heddon case. It does not exactly suit me, but I have not found anything better.

J. A. Green—No super is advisable that needs taking apart. I use a simple rim with tins nailed to the bottom of the ends to support the "section holders." I think that wide frames without top-bars, are preferable, as the bottom-bars will sag a little, which leaves a crack at the top in which the bees place propolis. There are no advantages in top-bars.

Mr. Heddon—If separators are not used, there is nothing better than my old style of super. With separators, the T-super is preferable. So far as working is concerned, I prefer my new style of case with wide frames, but the cost is against it.

Mr. Gibbs—I think that wide frames may cost the most, but they are the cheapest in the end, as I do not break so much honey in removing the sections. I think that separators are a necessity.

Surplus Bees.

Mr. Gibbs wished to know what to do with bees when he had more than he wanted.

President Miller advised uniting, and in the spring making stronger colonies.

Mr. Aspinwall said that the best yield he ever knew was the result of such uniting.

When to Market Honey.

Mr. Gibbs said that* most of the honey was sent to market too soon. It becomes soiled and stale from standing about, before the season is fairly open.

Mr. Heddon—People desire honey when the weather is cool—not much before. If sent to the market in large quantities before there is much demand, it aids largely in reducing the price. Small crates have advantages, less likelihood of breakage, and many are sold direct to consumers who would not buy a large crate of honey.

What Hive will Prevent Swarming?

J. A. Green—A large hive.

Mr. Heddon—With my hive and management, I believe that I can produce extracted honey with so little swarming that it will not pay to keep a man in each apiary all the time.

Mr. Aspinwall—I wish to mention the wooden combs in this connection. No bees have swarmed when occupying these combs. No drones can be reared, and I do not believe that the instinct of the bees will allow them to swarm when they can rear no drones to mate with the young queens.

The Unfinished Sections.

J. A. Green—Sections filled with foundation are finished sooner, and look nicer than partly-filled sections kept over from the previous season. One or two such sections in the centre of the super will answer as a "bait" to start the bees to work, but they will never be so fine in appearance; neither does the honey keep so well. It is more likely to "sweat," or ooze from the combs.

J. C. Wheeler—I have seen Mr. Green's honey, and these old sections really look poorer.

Mr. Heddon—A new, naturally-built comb will be finished and capped sooner, when nearly ready to cap, than will one built on foundation.

President Miller—Perhaps Mr. Green does not succeed in having his sections entirely freed from honey the previous season.

J. A. Green—How do you get them cleaned?

President Miller—I pile the supers up out-of-doors, and leave a small opening, large enough for a single bee to enter. The combs will not be injured if only such a small opening is left.

J. A. Green—That is exactly the way I do.

Mr. Heddon—Dr. Miller, do you not teach your bees to become robbers and "snoops," by such management? If I were writing a book on bee-culture, I should lay it down as a principle, that, under no circumstances, should bees be allowed access to honey outside the hives. I would put the sections over a colony.

President Miller—I have never had any trouble in this direction.

Mr. Black—I should think that there would be considerable commotion and quarreling around the entrance to the stack of supers.

President Miller—There is; but I do not know that it causes any trouble.

Chas. H. Green—I secure more honey by using the drawn combs. I extract them in the fall, and just at dusk put a case of them down at the entrance of a hive. The bees come out and clean up the sections.

Mr. Gibbs—I get the honey out, and the combs cleaned up in the same way that Dr. Miller does. In the spring I break off the outside of the combs.

Several spoke of leaving the partly-finished combs until the dark honey harvest.

The Zinc Queen-Excluder.

Mr. A. I. Root said that the first size of perforated zinc that he made was too small; it troubled even the workers to get through. The next size was a

little too large, and queens could probably squeeze through it. He now makes a size between the other two, which was probably the correct size. He said that he once had trouble with brace-combs being built to the bottoms of sections. He could not believe that a honey-board would allow him to take off a super, slick and clean, as Mr. Heddon said that it would. He thought that we all ought to be thankful to Mr. Heddon for his persistence in bringing the honey-board before the public.

Mr. Heddon called attention to the discussion that took place last winter at the meeting of the Michigan Beekeepers' Association, in regard to the number and size of openings needed in a honey-board. Two rows of perforations had proved sufficient. He believed that one row would be sufficient for a strong colony. One row of perforation in each strip of zinc was certainly more passage-way than was needed.

Marketing Honey.

R. A. Burnett—It is a fact that honey is sold only in a small way in warm weather. Honey does not carry so well in hot weather as in moderately cool weather. It leaks more, and soils the cases. October and November appear to be the best months for shipping. It is the privilege of the consignor to limit the price. It certainly relieves the commission man of much responsibility. Sometimes it results in gain, sometimes in loss. The pound sections seem to have driven out about all other sizes. The 60-pound, square tin-can, jacketed with wood, is the best for shipping extracted honey. There is no leakage, and the honey is kept perfectly.

Honey-Boards.

President Miller said that he had experienced some trouble the past season by bees building brace-combs above the slatted honey-boards. He could not say *why* they had done so. He looked upon the honey-board as a great invention, but had hopes that it might yet be discarded.

Mr. Heddon asked upon what he based his hopes.

The President could not say, but thought that more wonderful things than this had occurred.

Mr. Heddon did not believe that, so long as the instinct of the bees remained as at present, the honey-board would be discarded.

W. T. F. Petty reported that he had used thick top-bars, and very few brace-combs were built above them—so few that no honey-board was needed.

J. A. Green had had brace-combs built above all zinc honey-boards, but it was the result of their sagging.

Chas. H. Green had used top-bars $\frac{1}{2}$ of an inch square. It lessened the number of brace-combs, but not to such an extent that honey-boards could be dispensed with.

Mr. Heddon—When I began using the Langstroth hive, the top-bars were $1\frac{1}{2}$ wide, which made the openings between the top-bars a trifle over $\frac{1}{4}$ of an inch. I had much trouble by the bees building brace-combs and wax *between* the top-bars. I reduced the top-bars in width, and was surprised to see that less combs were built *between* the top-bars, but more above them.

A. I. Root had had the same experience. He reduced the top-bars in width, by cutting them down with a jack-plane.

J. A. Green—I once bought some bees in hives having frames with $\frac{1}{2}$ square top-bars. The bees filled the spaces between them with hard wax, and built just as many brace-combs above them, as in the other hives.

Mr. Heddon—I do not see how Dr. Miller can think that the honey-board will ever be abandoned. I would be just as glad as any one to lay it aside, but I do not see how it can be done.

President Miller—The experience of Mr. Petty is a pointer in that direction.

Mr. Heddon—Yes, but the experience of these other men is a pointer in the opposite direction. Then there is this much about it, what he calls a "few" brace-combs, I might call a good many.

Mr. Petty—I have 150 colonies, and I will admit that I never used the honey-board, simply because I have seen no necessity for it.

Getting Bees Out of Sections.

Some member said that he had read in the AMERICAN BEE JOURNAL that Mr. Heddon had some method of getting bees out of supers without removing the supers from the hive, and he would be glad if he would disclose this secret.

Mr. Heddon—I decline.

President Miller mentioned the plan of driving out as many bees as possible with smoke, then piling 8 or 10 supers on one hive, and having one person work the smoker vigorously upon the upper super, which will drive the bees down, when a second person snatches it off before the bees have time to return.

Chas. H. Green spoke of leaning the case against the side of the hive, and allowing the bees to crawl back into the hive. This is an excellent plan when robbers do not trouble.

J. A. Green spoke a favorable word for the "Reese escape."

Mr. Heddon was again urged to disclose his plan.

Mr. Heddon—Mr. President, may I speak right out in meeting?

President Miller—Yes.

Mr. Heddon—Well, this invention is partly that of my son, and so thoroughly has he been impressed with the treatment that I have received in regard to my inventions—the disposition of a certain class to steal and claim them—that he declares that he will not suffer in this way—he will neither patent nor make public his discovery. I tell you, friends, the man who steals bread, goaded to the act by the sight of palid lips of starving wife or child, has an excuse; but he who steals the honor that belongs to another, steals something that he cannot successfully use, something that fits him only as the armor of a plumed knight fits a pollywog, and is a thief by nature—

Here Mr. Heddon threw upon the table the handful of voting-blanks with which he had been gesticulating, and strode back to his seat. Later in the day a member said to us: "Mr. Heddon was a little 'riled' once today, wasn't he?" After a moment's thought he added, "But I don't know as I blame him any."

Overstocking a Locality.

All agreed that a locality *could* be overstocked; then followed the question, "How many colonies is it profitable to keep in one locality?"

President Miller said that he was more deeply interested in this question than in any other connected with bee-keeping, unless it might be the prevention of swarming, but it was a question well-nigh impossible to answer definitely, because seasons and localities differed.

Mr. Heddon—I agree with Dr. Miller as regards locality, but not season. If there are blossoms enough to keep the bees busy visiting them, it makes no difference whether the season is good or bad. We must try to get the most money out of our field. Others must be kept out. If we increase the number of colonies until the yield per colony is small, the less opportunity is there for some upstart with a dozen colonies. He can make no profit with his low yield per colony, but I can stand it, because of my large number of colonies. I think that 200 colonies, spring count, will give the best results, and, with the proper hives, tools, and system, one man can manage such an apiary.

Mr. Root gave several instances where large apiaries, notably in California and Wisconsin, had furnished great yields; but he admitted that there was no profit for any one in keeping bees near his large apiary in Medina. Every one who tried it, was obliged to give it up.

Chas. H. Green wished to know if bees right close to basswood did any better than those a little distance away. He had taken bees right into the basswood forest, and they did no better than those a mile and a half away.

Mr. Heddon once had a new swarm that stored 29 pounds and 13 ounces of honey in 24 hours, and the bees flew $2\frac{1}{2}$ miles; some of them 4 miles.

In regard to how many colonies it is profitable to keep in one locality, opinions varied all the way from 75 to 200.

Alsike Clover as a Honey-Plant.

All agreed that Alsike clover is an excellent honey-plant, and for making excellent hay. It is a profitable one for the farmer to grow. It is particularly adapted to low, moist land.

Mr. Root had furnished free all the seed that would be sown within $1\frac{1}{2}$ miles of his apiary; and at half price, that sown beyond $1\frac{1}{2}$ miles, and within 2 miles.

Mr. Wheeler—The trouble is that the farmers cut it too early for it to be of much benefit to bee-keepers.

Mr. Heddon warned bee-keepers against this seed business. To give it away is wrong in principle. The moment that a farmer gets the idea into his head that your bees will get honey from his clover, then he does not wish to sow it. This is human nature. Let me tell you how I managed it. You know that I publish a local paper out at Dowagiac. Well, I sent to Mr. Newman for a cut of Alsike clover. Then I wrote an article on Alsike as a desirable crop for farmers to raise. I spread it on pretty thick, but I guess I did not stretch the truth any. But not a word did I say about its honey-producing qualities. Then I went to our seedsman and showed him what I had done, and induced him to put in a stock of seed. I then gave notice where the seed could be obtained. The result is that the farmers have sowed largely of the Alsike. Where a man has no paper to work with, and cannot work with some other fellow's paper, the next best plan is to get some old farmer interested, and let him do the talking.

The Bee-Keepers' Union.

In answer to the question, "Is the Bee-Keepers' Union Desirable?" Mr. Heddon said: Yes, it is. Bee-keeping as a business is new. People have not yet learned to look upon it with respect. There may be a stable on an adjoining lot, and no one complains. A man may build a mill-dam, overflow the country, and cause malaria, and there is no thought of asking for the removal of either. People have become accustomed to these things, and take them as a matter of course. It is

not so with bees. We need the Union to *compel* this respect. Jealousy and envy are at the root of much of this trouble. Bee-keepers need a "trust" as much as any other branch of business does.

Mr. Newman was called upon for his views on the subject, and said:

The Bee-Keepers' Union has done much to earn a right to exist. It has gallantly fought many battles in defense of the pursuit of bee-keepers, and in *every case* which has been fully and finally decided, it has *won the victory*. It has now on hand three cases, two of which have been tried in the lower courts, and there a verdict has been obtained against the bees. It will not do to let these cases stand where they are; they must be fought through to a finish, and must also be won, if that is possible.

The only question is a financial one. If money enough can be had to employ the best legal talent, they can be won. If not, then they may be lost. We want to get a lawyer like Judge Williams, of Arkansas, to argue the case before the Court of Appeals in New York, and win the case of S. W. Rich, as we won the case of Z. A. Clark, and thus have a magnificent decision to place upon record, as a precedent in New York. If money enough were in sight, the Manager would employ such a lawyer, but the present half-hearted support will not warrant such an outlay.

The idea of a jury awarding damages of 6 cents, when \$1,500 was wanted by the complainant. This shows that he had no case, and had the jury not been tied up to the instructions of a weak and time-serving Judge, they would have non-suited the banker and declared in favor of the bees.

The fight against bee-keeping is rampant, and unless it is checked, no one will be left unmolested. But it must not be allowed to go on in its fight against an honorable pursuit. It must not succeed; the stars in their courses will fight against it, if the bee-keepers will not do their duty. These are not questions of a day or an age, but of all time. They are born of jealousy and hatred, and are a part of the conflict between the rights of a lawful pursuit, and the ignorant and envious, which in some form is as old as history itself. It must now, in this new world of the West, receive its death-blow by legal tribunal and due process of law; and bee-keeping be declared a lawful and honorable pursuit.

W. Z. Hutchinson—There is this good thing about it to comfort us—the money that we pay to the Union, goes to help some unfortunate brother.

(Concluded next week.)

CONVENTION DIRECTORY.

1889. Time and Place of Meeting.
 Dec. 4-6.—International, at Brantford, Ont., Canada.
 R. F. Holtermann, Sec., Romney, Ont.
 Dec. 16, 17.—Northern Illinois, at Rockford, Ills.
 D. A. Fuller, Sec., Cherry Valley, Ills.
 1890.
 May 2.—Susquehanna Co., at Hopbottom, Pa.
 H. M. Seeley, Sec., Harford, Pa.

✎ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM OUR LETTER BOX

Working on the Golden-Rod.

—F. B. Reynolds, Rosburgh, N. Y.,
 Oct. 7, 1889, writes:

As you want the opinion of beekeepers in regard to golden-rod as a honey-plant, I will give my observations. I never could find a bee on it until this season, and I must say that I never saw bees work harder on anything of the plant line; it seems as though at times they would devour the whole plant. They did not work on buckwheat; I had a piece of Japanese, not more than ten rods from my apiary, and I saw but very few bees on it.

Bee-Keeping in Minnesota.—

H. H. Rosebrock, Owatonna, Minn.,
 on Oct. 8, 1889, writes:

We have had, here in Minnesota, a very curious year for bees. In the spring, bees got some honey from fruit-bloom—enough to increase in numbers—but then we had dry and cold weather, so that in the latter part of May and the first part of June, my bees came nearly starving—they were killing drones. But from July 1 to Sept. 1, we had a continual flow of honey—it was no science to produce comb honey. My yield from 150 colonies, spring count, is 4,500 pounds of extracted, and 2,500 pounds of comb honey. The increase was small. In other years our honey season lasts from June 15 until Aug. 1, and perhaps from Aug. 20 to Sept. 10. We had more buckwheat and golden-rod honey than anything else.

Good Fall Honey-Flow.—E. L.

Pratt, Marlboro, Mass., on Sept. 17, 1889, writes:

Before the six days' rain that we are now having, the bees had been getting in an immense amount of honey from fall bloom. It is of light color and good quality. At this time last fall, we were feeding our bees, but now we

are taking away full combs of honey, and inserting empty comb or foundation. I have noticed a peculiar fact for the past few seasons: two years ago at this time, the bulk of the flying was toward the north; this season it is all south. I went to a 3-acre buckwheat field $1\frac{1}{2}$ miles north of our yard the other day, for the purpose of seeing that grand sight of bees working on buckwheat; but not a single bee did I see, although the plants were in full bloom. The field is about half and half Japanese and common buckwheat. The fresh and heavily-scented breezes that come from it, seemed heavy with nectar.

Primrose and Aster.—J. M.

Pratt, Todd's Point, N. Y., on Sept. 30, 1889, writes:

I enclose three flowers—please give their names as numbered. No. 1, I think, is golden-rod; if so, it is not nearly what it is claimed to be for honey, in other places. No. 2, I saw bees working on strong this morning, at 9 o'clock. No. 3, I think is a wonderful yielder of honey, but not of a pleasant flavor, and can be scented 100 feet from the hives. All three came into bloom in the middle of September, and continue till heavy frost.

[No. 1 is golden-rod.

About No. 2, Prof. C. M. Weed, Entomologist and Botanist of the Ohio Experimental Station at Columbus, O., remarks as follows: "It is evening primrose, *Oenothera biennis*. It is usually fertilized by moths, and I should not suppose it to be much of a honey-plant."

No. 3 is one of the numerous family of asters.—ED.]

Prize Golden-Rod very Highly

—H. F. Gressman, Water Valley, N. Y., on Oct. 7, 1889, says:

I find in some localities that golden-rod produces but little if any honey; in this neighborhood it is abundant, and yields a large amount of honey during pleasant weather. Several bees may be found on one stalk, even if it stands alone in the field. Everywhere it is literally covered with bees. We prize golden-rod as a very valuable honey-plant.

This has been a very poor year for bees—far worse than last year. We obtained no honey from white clover. Basswood yielded quite a fair crop of honey, but the weather did not permit the bees to gather nectar only two or three days during the height of the honey-flow.

Experiments with Hives and Frames.—R. B. Woodward, M. D., Somerset, O., on Oct. 9, 1889, writes:

We have had a good season. I began in the spring with 17 colonies, increased to 23, and secured 1,600 pounds of clover honey—one half or more in the comb. I sold my crop on an average of 16 cents per pound. I have discarded all black bees, including the Carniolans, which, with us, are in no way superior to the best strains of Italians or Syrians. I used 3 sizes of frames— $11\frac{1}{2} \times 13\frac{1}{2}$ inches, $9\frac{1}{2} \times 17\frac{1}{2}$, and $5\frac{1}{2} \times 17\frac{1}{2}$ inches, and saw no difference in the results. My hives are all $18\frac{1}{2} \times 14\frac{1}{2}$ inches. The different depths are made to suit the size of frames. I am much pleased with shallow frames— $5\frac{1}{2} \times 17\frac{1}{2}$ inches, and 9 frames to the case—for extracting purposes. Bees are in fine condition for wintering. I winter my bees out-doors, and have never lost any colonies.

Only Half a Crop.—Albert K.

Dakin, Tully, N. Y., on Oct. 7, says:

The honey crop in this locality has not been more than one-half of a crop, on account of the wet weather. I have sold my crop so far for 12 and 15 cents per pound.

Not a Large Honey Crop.—A.

M. Vannoy, Hedrick, Iowa, on Oct. 14, 1889, writes:

Our fall honey crop in this part of Iowa, is *non est*, on account of too much windy, rainy weather; although we had the finest crop of golden-rod bloom ever known in this part of the country, we got little or no golden-rod honey; so our large honey crop is really not as large as it is supposed to be. Bees, where they have had proper care, are in good condition for winter. There are more bees, and in better condition, in this immediate vicinity, than at any time in the past 20 years.

Good Results.—Robert Schultz,

Alma, Wis., on Oct. 8, 1889, says:

My 3 colonies of bees, or what I had left from 7 colonies last winter, did well. I now have 13 colonies. I had the first swarm on May 11, the second on May 22, and the third on May 24. I hived all three, and took from the first swarm, 100 pounds of honey, and it swarmed again on June 18. I hived the swarm, and took off 112 pounds; from the second swarm I took 70 pounds; and from the third swarm, 64 pounds; from the old colony I took 90 pounds. I took off 663 pounds of honey in all. The AMERICAN BEE JOURNAL is a great help.

Afflicted with Carbuncles, etc.

—A. J. Duncan, Hartford, Iowa, on Oct. 10, 1889, says:

I am now, and have been for some time, sorely afflicted with carbuncles, first on my knee, that dried up after due time, then one came on my left arm; it has been there about three weeks, and is now getting some better. I now have four on the top of my head; they are not large, but quite sore, and make it quite interesting to me. I think that perhaps I have bad blood, from having so much poison injected into my system from the "business end" of the "blessed bees." I would like to have some opinions from the bee-fraternity on this (to me) important subject. My crop of honey this year has been 75 pounds of extracted honey per colony, spring count, or a little over 2,400 pounds to 32 colonies. I have sold my honey at 10 cents per pound, and do not ask the corner grocer how much *he will give*.

Buckwheat and Golden-Rod.

—John K. Rich, Cato, N. Y., on Oct. 9, 1889, writes:

I have just finished taking off my fall crop of honey, and I find that one-third of it is from golden-rod, and very nice it is—very thick, and of good flavor. The balance of the fall crop is buckwheat. My bees worked on buckwheat first, and when the supers were nearly full, I raised them up, and put others under them; the lower one I found contained the golden-rod honey, and but very few were mixed. The hives of some prime swarms contained 24 pounds of buckwheat, and about 20 pounds of golden-rod honey. Last season I got but little golden-rod honey, but two years ago I had a good crop. Buckwheat yields a fair crop every year.

Apiary on a Public Highway.

—A. Wortman, of Seafeld, Ind., asks the following question:

What distance should a bee-keeper place his apiary from a public highway, to make it safe and lawful, according to the laws of Indiana?

[Will some Indiana apiarist please reply to this question?—Ed.]

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